The proof is in the pudding: Exploring the impact of different methods for measuring obesity on wage discrimination

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Evidence suggests that especially for female workers, being obese as classified by Body Mass Index (BMI) results in pay discrimination in the workplace. Research also indicates that obese individuals have increased risk of suffering from poor health which may impact on their productivity at work and subsequently their observed wage. Thus there are both productivity and non-productivity related factors that may explain observed lower wages of obese individuals.

There is some indication that BMI which does not control for body composition in terms of muscle vs fat may bias estimates of an obesity wage penalty. Until recently because of the costs associated with collecting alternative measures of obesity such as waist circumference (WC) and percent body fat (PBF) this data was not available in large household surveys which contain the rich employment data needed to further research this area.

In this study we exploit the Understanding Society Survey; the largest household survey in the world of approximately 20,000 UK households. It contains rich information on employment, socioeconomic characteristics and demographic information. There are currently 5 waves of data available. In addition, in waves 2 and 3, a sub-sample of respondents were chosen to participate in a nurse assessment survey where biomarker data and three different measures of adiposity: BMI, WC, and PBF were collected. We utilise this information to compare and contrast by adiposity measure evidence of an obesity wage penalty. Separate analysis is performed by gender. We also explore differences by socioeconomic status measured by occupation class. The analysis is estimated using Oaxaca-Blinder decomposition correcting for selection into the labour market. In some estimation models, after controlling for potential endogeneity of health and labour market outcomes using selection models; we control for obesity related health conditions such as diabetes and high blood pressure which will explain productivity differences in wages between obese and non-obese workers. Our data allows us to investigate if developing one of these conditions has an immediate impact on wages or if there is possibly a delayed effect.

This paper sheds additional light on both the productivity related and non-productivity related penalties of obesity. Employers and public policy makers wishing to both support workers and reduce costs need a better understanding of the impact of obesity on employment.